

Natural History Biographies

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THE TWO JOHN CLAYTONS OF VIRGINIA – Because of their identical names, these two writers about Virginia's early natural history have long been confused even though they lived in different time periods. Perhaps the easiest way to keep them separate is to refer to the earlier one as "The Reverend," and the later one as "The Botanist." From the following condensed biographies, it will become clear that "The Reverend" was more of an all-round naturalist and scientist, whereas "The Botanist" concentrated on entirely plants.

I. The Reverend John Clayton (1657-1725)

This John Clayton was born in Lancashire, England, graduated from Oxford (B.A., 1678; M.A., 1682), showed an early interest in science (medicine, zoology, chemistry, geology), and became an ordained minister about 1682. Thereafter, he experimented with a primitive pressure cooker and specific gravity of liquids, distilled coal, and was credited with the discovery of gas lighting. Such experiments impressed scholars at Oxford and the Royal Society. He had hoped to continue some experiments when he arrived in Virginia in 1684, but unfortunately all his equipment was lost at sea. Although somewhat disheartened, he proceeded with his ministerial duties, and kept copious notes on natural and physical attributes observed in the New World. He went to Virginia with a sound scientific training and with the intention of learning as much as possible about its many natural and physical curiosities.

As rector of the Jamestown church, Clayton met many prominent people, including the Governor (Lord Howard of Effingham), Secretary of State (Nicholas Spencer), and wealthy planters such as William Sherwood and William Byrd I. Another acquaintance was the Reverend John Banister, rector of Charles City, who soon became a famous naturalist and botanist. Although they met once and discussed some evolutionary problems and cicadas, it is not clear how much they saw of each other. His most congenial friend was William Byrd I from whom he learned much about the countryside and Indian trade. Clayton provided an early map of Jamestown, and then traveled in the settled portions of the colony's tidewater area—Gloucester, Isle of Wight, Nansemond, and New Kent. For the two years he was in Virginia, he drew plants, made some collections, and gained a vast fund of knowledge about the colony.

Clayton returned to England in 1686, taking some drawings of plants, probably some collections and much information about Virginia. On ship-board he took notes on sea turtles, the habits of "small black divers" (=Dovekies), and "prodigious floating Islands of Ice." In England he continued pastoral duties as rector of the ancient Church of All Saints at Crofton and his scientific studies. Once he traveled to London to discuss his design of a speaking trumpet with the famous Robert Boyle. He worked with Dr. Allen Moulin with whom he prepared exquisite detailed drawings of dissected birds' heads and nervous systems. In 1697 he became Dean of Kildare in Dublin, Ireland, where he remained until his death in 1725.

Between 1688 and 1694 Clayton, as the Rector of Crofton at Wakefield in Yorkshire, sent several lengthy, detailed letters to the Royal Society, each published in the *Philosophical Transactions of the Royal Society of London*. They dealt with air and weather, water, "Earth and Soil," "Of the Birds," and "Beasts of Virginia" (mammals, reptiles, amphibians, fish). Each of these constituted the most complete accounts from Virginia published in the 17th century. He intended to write other articles on insects and plants, but no manuscripts have ever been found. In 1688 he read a letter to the Royal Society on the Woods/Fallam expedition "from Virginia beyond the Apalachin mountains," or "Discovery of the South Sea."

Concerning his collections in Virginia, in his letter "Of the Birds," Clayton wrote "I had indeed begun once whilst I was in that country to have made a Collection of the Birds, but falling sick of the Gripeing of the Gutts, some of them for want of care corrupted wch made them fling others away that I had thoroughly cured for I was past takeing care of them myself, there remaining but small hopes of my life." Certainly this loss of bird specimens was tragic because, had they survived, they would have been among the earliest type specimens from the New World.

Clayton has been considered to be the best bird observer who had reached the American colonies. He was the first Englishman to name 12 new birds from Virginia with either appropriate names or adequate descriptions—for example, Belted Kingfisher, Snowy Owl, and Purple Martin. He still persisted, as did his predecessors in Virginia, in comparing Virginia birds with those seen in England, using the expression "are much like ours" (Jay, Chaffinch, Turtle-dove), then pointing out differences. Ornithologists have been impressed by the number of birds which can be identified from his

descriptions and consider his accounts outstanding for that time. His published paper, "Of the Birds," constituted most of the detailed observations written about American birds prior to the time of Mark Catesby and Alexander Wilson.

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II. John Clayton (1694-1773)

A distant relative of the scientifically-minded Rev. John Clayton, this John Clayton came to Virginia from England in 1720, became an affluent farmer-planter, and served as Clerk of Gloucester County for 50 years. His father, Virginia's Attorney General, and William Byrd II had enjoyed a long association at Westover, and it is likely that Byrd, his wife's brother-in-law John Custis, Dr. John Mitchell, John Bartram, and Mark Catesby all influenced the development of young John Clayton into a botanist. Aided by a substantial inheritance from his father, Clayton developed his own botanical garden at his home "Windsor," near the Piankatank River at its mouth on the Chesapeake Bay. He corresponded with Byrd and many others about seeds and plants. He became well known to members of the natural history circle on both sides of the Atlantic, especially in his contribution to *Flora Virginica* published in 1739 and 1743.

In the 1730s he prepared a manuscript, "A Catalogue of Plants, Fruits, and Trees Native to Virginia," and sent it to Johann Frederick Gronovius in Leiden who, in collaboration with Linnaeus but without Clayton's consent, compiled and published it as *Flora virginica* in 1739. Even so, Clayton continued to send Virginia plant collections to Gronovius via Mark Catesby, and then Gronovius published a second part of *Flora virginica* in 1743. Clayton undertook his own revision of *Flora virginica*, but lacking a publisher, once again he was preempted publication as Gronovius' son published a revised edition in Leiden in 1762.

The only major publication by Clayton on wildlife

appeared in a letter written in 1739 (*Virginia Magazine of History and Biography* 7:172-174, 1900). Therein, he briefly mentioned mammals (wolves, panthers, wild cats, elk, etc.) and a "great plenty and variety of fish." His descriptions of birds is more complete: "wild Turkey's very numerous, Partridges (the size and colour like y'r Quails), wild Geese, Swans, Brants, Cormorants, Teal, Duck and Mallard, Black ducks and another sort we call Summer Ducks, Plover 2 or 3 sorts, Soris (a delicious eating bird in Shape and way of living like y'r Water Rails), Heath Fowls (called here improperly Pheasants) 2 sorts, wild Pidgeons in prodigious great flocks, Fieldfares, Woodcocks (...only in summer) Snipes, Herons, bitterns, Eagles, Larks 2 sorts one of w'ch are here all the year round, are as big as Quails, the other are seen only in winter and are much like your lark" (p. 173). Subsequently, Mark Catesby in his *Natural History of Carolina*, credited Clayton for his description of the Whip-poor-will

Clayton became a respected member of the natural history circle on both sides of the Atlantic. He made many journeys throughout the colony to study natural history, even as far as the Blue Ridge and Great Valley, after which he wrote about "Smoaky Weather" (smoke from Indian fires) and "an uncommon kind of humming bird." When the Virginia Society for the Promotion of Useful Knowledge was organized in 1773, he was chosen president. Some of his herbarium specimens have been preserved in the British Museum.

Today, John Clayton the botanist, having learned and employed the new Linnaean nomenclatural system, is best remembered for his contribution to *Flora Virginica* and his introduction of sound scientific principles into botanical studies in the United States. Thomas Jefferson characterized Clayton who "passed a long life exploring and describing its [Virginia's] plants, and...enlarged the botanical catalogue as much as almost any man."

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